

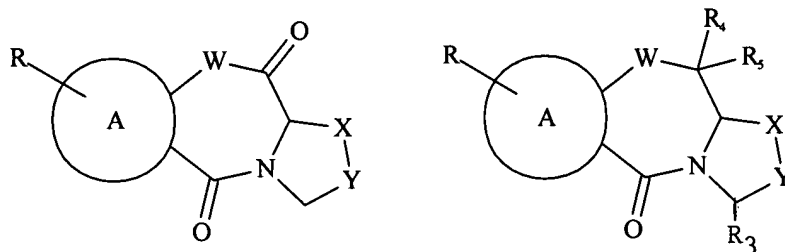
**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-28 (canceled)

Claim 29 (currently amended): A compound having the following formula, or a pharmaceutically acceptable salt thereof:



wherein A is ~~thiazole, benzene, or naphthalene, pyridine, pyrimidine, pyrazine, or quinoline;~~

R is one or more of halogen or NO<sub>2</sub>;

X-Y is CH<sub>2</sub>-S, S-CH<sub>2</sub>, CH<sub>2</sub>-O, CH<sub>2</sub>-S(O), S(O)-CH<sub>2</sub>, CH<sub>2</sub>-CH<sub>2</sub>, CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>, or CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>;

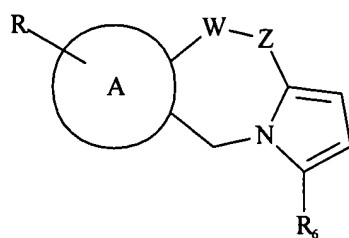
R<sub>3</sub> is H or phenyl;

R<sub>4</sub> is H or hydroxy;

R<sub>5</sub> is H, phenyl, -alkyl-NH<sub>2</sub>, -NH-alkyl, or -N(alkyl)<sub>2</sub>; and

W is S or O

or wherein the compound is



wherein

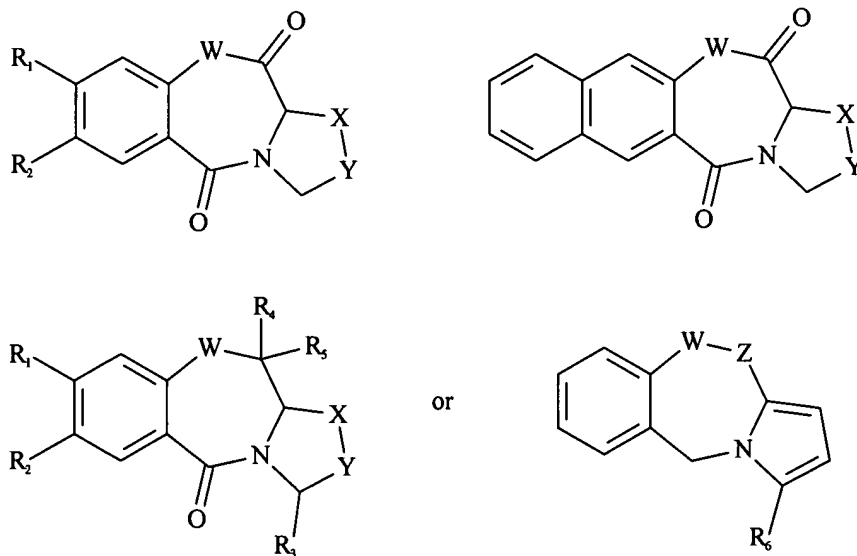
A is ~~thiazole~~, benzene, or naphthalene, ~~pyridine, pyrimidine, pyrazine, or quinoline~~; and  
R is one or more of halogen or NO<sub>2</sub>;

R<sub>6</sub> is H, unsubstituted alkyl or amine, or alkyl or amine substituted with at least one substituent selected from halogen, alkyl, alkoxy, alkylthio, trifluoromethyl, acyloxy, hydroxy, mercapto, carboxy, aryloxy, ~~aryloxy~~, aryl, arylalkyl, ~~heteroaryl~~, amino, alkylamino, dialkylamino, morpholino, piperidino, pyrrolidin-1-yl, or piperazin-1-yl;

W is S; and

Z is S, O, CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, ~~or~~ C=O, ~~-CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, -CHC<sub>6</sub>H<sub>4</sub>-pF, or -CHC<sub>6</sub>H<sub>5</sub>.~~

Claim 30 (currently amended): A compound having the following formula, or a pharmaceutically acceptable salt thereof, wherein the compound is:



wherein

X-Y is S-CH<sub>2</sub>, CH<sub>2</sub>-S, S(O)-CH<sub>2</sub>, CH<sub>2</sub>-S(O), or CH<sub>2</sub>CH<sub>2</sub>;

Z is S, O, CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, ~~or~~ C=O, ~~-CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, -CHC<sub>6</sub>H<sub>4</sub>-pF, or -CHC<sub>6</sub>H<sub>5</sub>;~~

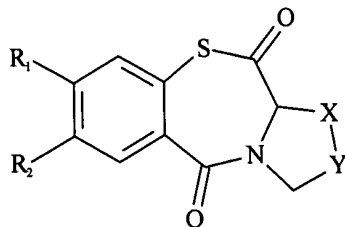
W is S ~~or~~ O;

R<sub>1</sub> is H, ~~halogen~~, lower alkyl, lower alkoxy, or NO<sub>2</sub>;

R<sub>2</sub> is H, halogen, lower alkyl or lower alkoxy;

$R_3$  is H;  
 $R_4$  is hydroxy or H;  
 $R_5$  is phenyl or  $N(CH_2CH_2)_2NCH_3$ ; and  
 $R_6$  is  $CH_2N(CH_2CH_2)_2NCH_3$ ,  
provided that  $R_1$  and  $R_2$  are not both H or not both alkoxy.

Claim 31 (original): The compound of claim 30, wherein the compound is

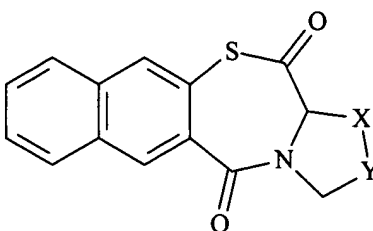


and  $R_1$  is H or  $NO_2$ ;  
 $R_2$  is H, halogen, lower alkyl or lower alkoxy;  
provided that  $R_1$  and  $R_2$  are not both H or not both alkoxy.

Claim 32 (previously presented): The compound of claim 30, wherein

$R_1$  is H,  $R_2$  is Cl, X-Y is S- $CH_2$ ; or  
 $R_1$  is H,  $R_2$  is Br, X-Y is S- $CH_2$ ; or  
 $R_1$  is H,  $R_2$  is  $CH_3$ , X-Y is S- $CH_2$ ; or  
 $R_1$  is H,  $R_2$  is Cl, X-Y is  $CH_2$ -S; or  
 $R_1$  is H,  $R_2$  is Br, X-Y is  $CH_2$ -S; or  
 $R_1$  is H,  $R_2$  is  $CH_3$ , X-Y is  $CH_2$ -S; or  
 $R_1$  is  $NO_2$ ,  $R_2$  is H, X-Y is  $CH_2$ -S; or  
 $R_1$  is H,  $R_2$  is  $OCH_3$ , X-Y is  $CH_2$ -S; or  
 $R_1$  is H,  $R_2$  is  $CH_3$ , X-Y is S(O)- $CH_2$ ; or  
 $R_1$  is H,  $R_2$  is Cl, X-Y is  $CH_2$ -S(O); or  
 $R_1$  is H,  $R_2$  is  $OCH_3$ , X-Y is  $CH_2$ -S(O).

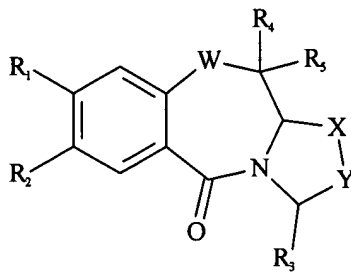
Claim 33 (original): The compound of claim 30, wherein the compound is



and X-Y is S-CH<sub>2</sub> or CH<sub>2</sub>-S.

Claim 34 (original): The compound of claim 30, wherein X-Y is S-CH<sub>2</sub>.

Claim 35 (currently amended): A compound having the following formula, or a pharmaceutically acceptable salt thereof, wherein the compound is:



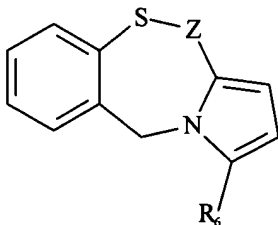
and R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are H, R<sub>4</sub> is OH or H;

W is S or  $\text{O}^-$ ;

R<sub>5</sub> is Ph or N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>CH<sub>3</sub>; and

X-Y is CH<sub>2</sub>-CH<sub>2</sub>.

Claim 36 (original): The compound of claim 30, wherein the compound is



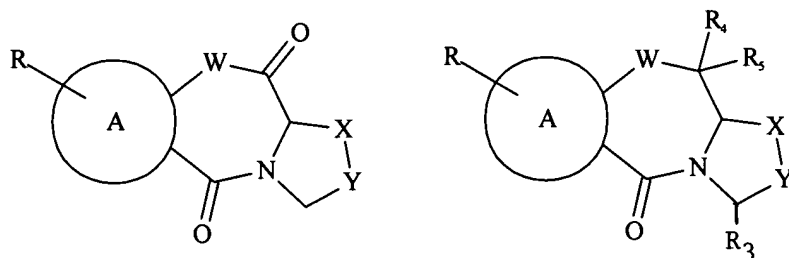
and R<sub>6</sub> is CH<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NCH<sub>3</sub>.

Claim 37 (original): A pharmaceutical composition comprising the compound of claim 29, or the pharmaceutically acceptable salt, and a pharmaceutically acceptable carrier.

Claim 38 (original): A pharmaceutical composition comprising the compound of claim 30, or the pharmaceutically acceptable salt, and a pharmaceutically acceptable carrier.

Claims 39-46 (canceled)

Claim 47 (currently amended): A method of treating HIV infection in a subject, comprising administering to the subject a therapeutically effective amount of a compound selected from the group consisting of:



wherein A is ~~thiazole~~, benzene, or naphthalene, ~~pyridine, pyrimidine, pyrazine, or quinoline~~;

R is one or more of halogen or NO<sub>2</sub>;

X-Y is CH<sub>2</sub>-S, S-CH<sub>2</sub>, CH<sub>2</sub>-O, CH<sub>2</sub>-S(O), S(O)-CH<sub>2</sub>, CH<sub>2</sub>-CH<sub>2</sub>, CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>, or CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>;

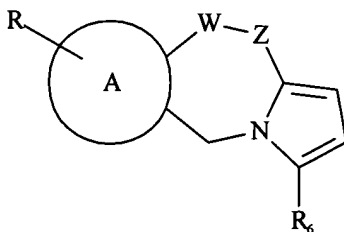
R<sub>3</sub> is H or phenyl;

R<sub>4</sub> is H or hydroxy;

R<sub>5</sub> is H, phenyl, -alkyl-NH<sub>2</sub>, -NH-alkyl, or -N(alkyl)<sub>2</sub>; and

W is S or  $\Theta$

or wherein the compound is



wherein

A is ~~thiazole~~, benzene, or naphthalene, ~~pyridine, pyrimidine, pyrazine, or quinoline~~; and

R is one or more of halogen or NO<sub>2</sub>;

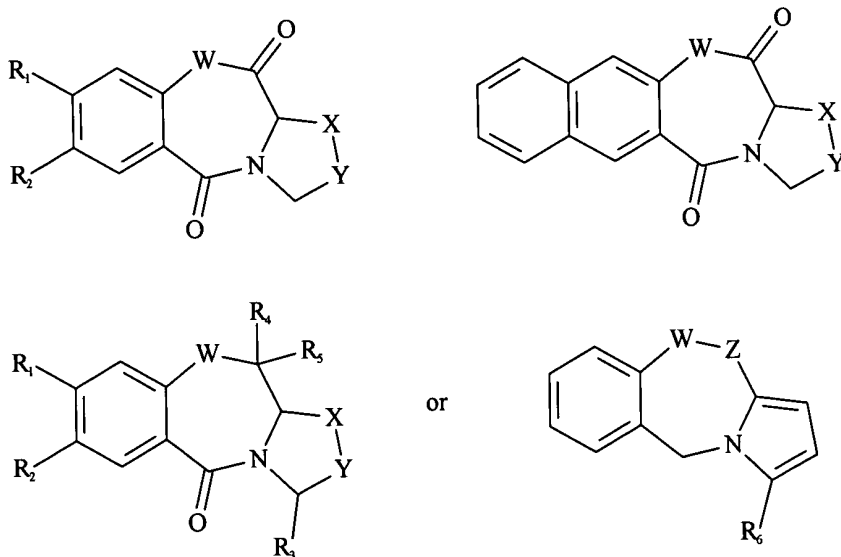
R<sub>6</sub> is H, unsubstituted alkyl or amine, or alkyl or amine substituted with at least one substituent selected from halogen, alkyl, alkoxy, alkylthio, trifluoromethyl, acyloxy, hydroxy, mercapto, carboxy, aryloxy, ~~aryloxy~~, aryl, arylalkyl, ~~heteroaryl~~, amino, alkylamino, dialkylamino, morpholino, piperidino, pyrrolidin-1-yl, or piperazin-1-yl;

W is S or O; and

Z is S, O, CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, or C=O, -CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, -CHC<sub>6</sub>H<sub>4</sub>-pF, or -CHC<sub>6</sub>H<sub>5</sub>.

Claims 48-54 (canceled)

Claim 55 (currently amended): A method of treating HIV infection in a subject, comprising administering to the subject a therapeutically effective amount of a compound selected from the group consisting of:



wherein

X-Y is S-CH<sub>2</sub>, CH<sub>2</sub>-S, S(O)-CH<sub>2</sub>, CH<sub>2</sub>-S(O), or CH<sub>2</sub>CH<sub>2</sub>;

Z is S, O, CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, or C=O, -CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, -CHC<sub>6</sub>H<sub>4</sub>-pF, or -CHC<sub>6</sub>H<sub>5</sub>;

W is S or O;

R<sub>1</sub> is H, halogen, lower alkyl, lower alkoxy, or NO<sub>2</sub>;

R<sub>2</sub> is H, halogen, lower alkyl or lower alkoxy;

R<sub>3</sub> is H;

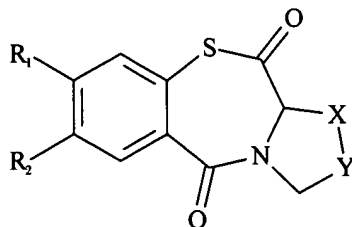
$R_4$  is hydroxy or H;

$R_5$  is phenyl or  $N(CH_2CH_2)_2NCH_3$ ; and

$R_6$  is  $CH_2N(CH_2CH_2)_2NCH_3$ ,

provided that  $R_1$  and  $R_2$  are not both H or not both alkoxy.

Claim 56 (previously presented): The method of claim 55, wherein the compound is



and  $R_1$  is H or  $NO_2$ ;

$R_2$  is H, halogen, lower alkyl or lower alkoxy;

provided that  $R_1$  and  $R_2$  are not both H or not both alkoxy.

Claim 57 (previously presented): The method of claim 55, wherein

$R_1$  is H,  $R_2$  is Cl, X-Y is  $S-CH_2$ ; or

$R_1$  is H,  $R_2$  is Br, X-Y is  $S-CH_2$ ; or

$R_1$  is H,  $R_2$  is  $CH_3$ , X-Y is  $S-CH_2$ ; or

$R_1$  is H,  $R_2$  is Cl, X-Y is  $CH_2-S$ ; or

$R_1$  is H,  $R_2$  is Br, X-Y is  $CH_2-S$ ; or

$R_1$  is H,  $R_2$  is  $CH_3$ , X-Y is  $CH_2-S$ ; or

$R_1$  is  $NO_2$ ,  $R_2$  is H, X-Y is  $CH_2-S$ ; or

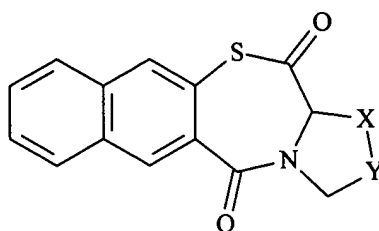
$R_1$  is H,  $R_2$  is  $OCH_3$ , X-Y is  $CH_2-S$ ; or

$R_1$  is H,  $R_2$  is  $CH_3$ , X-Y is  $S(O)-CH_2$ ; or

$R_1$  is H,  $R_2$  is Cl, X-Y is  $CH_2-S(O)$ ; or

$R_1$  is H,  $R_2$  is  $OCH_3$ , X-Y is  $CH_2-S(O)$ .

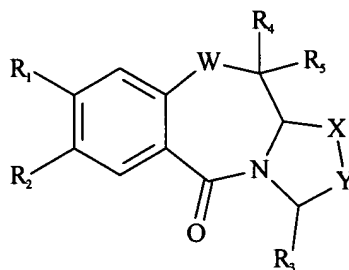
Claim 58 (previously presented): The method of claim 55, wherein the compound is



and X-Y is S-CH<sub>2</sub> or CH<sub>2</sub>-S.

Claim 59 (previously presented): The method of claim 55, wherein X-Y is S-CH<sub>2</sub>.

Claim 60 (currently amended): A method of treating HIV infection in a subject, comprising administering to the subject a therapeutically effective amount of a compound selected from the group consisting of:



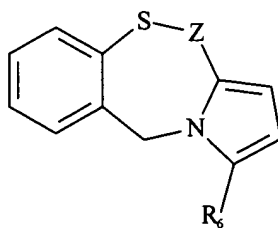
wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are H, R<sub>4</sub> is OH or H;

W is S or O;

R<sub>5</sub> is Ph or N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>CH<sub>3</sub>; and

X-Y is CH<sub>2</sub>-CH<sub>2</sub>.

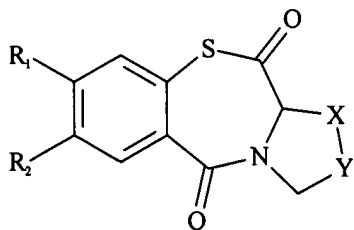
Claim 61 (previously presented): The method of claim 55, wherein the compound is



and R<sub>6</sub> is CH<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NCH<sub>3</sub>.



Claim 62 (previously presented): A compound having the following formula, or a pharmaceutically acceptable salt thereof, wherein the compound is:



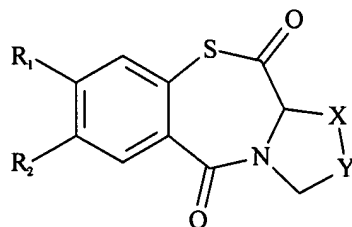
wherein X-Y is S-CH<sub>2</sub>, CH<sub>2</sub>-S, S(O)-CH<sub>2</sub>, or CH<sub>2</sub>-S(O);

R<sub>1</sub> is H or NO<sub>2</sub>; and

R<sub>2</sub> is H, halogen, lower alkyl or lower alkoxy.

Claim 63 (canceled)

Claim 64 (previously presented): A method of treating HIV infection in a subject, comprising administering to the subject a therapeutically effective amount of a compound selected from the group consisting of:



wherein X-Y is S-CH<sub>2</sub>, CH<sub>2</sub>-S, S(O)-CH<sub>2</sub>, or CH<sub>2</sub>-S(O);

R<sub>1</sub> is H or NO<sub>2</sub>; and

R<sub>2</sub> is H, halogen, lower alkyl or lower alkoxy.